

SEQUENCE LISTING

<110> Jander, Georg

Baerson, Scott R

Durrett, Timothy P

<120> Plants with Imidazolinone-Resistant ALS

<130> 38-10(15820)B

<150> US 60/257,480

<151> 2000-12-21

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<170> PatentIn version 3.1

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Ser	Thr	Lys	Pro	Ser	Pro	Ser	Ser	Ser	Lys	Ser	Pro	Leu	Pro	Ile	Ser
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Arg	Phe	Ser	Leu	Pro	Phe	Ser	Leu	Asn	Pro	Asn	Lys	Ser	Ser	Ser	Ser
		35					40					45			
Ser	Arg	Arg	Arg	Gly	Ile	Lys	Ser	Ser	Ser	Pro	Ser	Ser	Ile	Ser	Ala
	50					55				60					
Val	Leu	Asn	Thr	Thr	Thr	Asn	Val	Thr	Thr	Thr	Pro	Ser	Pro	Thr	Lys

65		70		75		80
Pro Thr Lys Pro	Glu Thr Phe Ile Ser Arg Phe Ala Pro Asp Gln Pro					
	85		90		95	
Arg Lys Gly Ala Asp Ile Leu Val	Glu Ala Leu Glu Arg Gln Gly Val					
	100		105		110	
Glu Thr Val Phe Ala Tyr Pro	Gly Gly Ala Ser Met Glu Ile His Gln					
	115		120		125	
Ala Leu Thr Arg Ser Ser Ser Ile Arg Asn Val	Leu Pro Arg His Glu					
	130		135		140	
Gln Gly Gly Val Phe Ala Ala Glu Gly Tyr Ala Arg Ser Ser Gly Lys						
	145		150		155	160
Pro Gly Ile Cys Ile Ala Thr Ser Gly Pro Gly Ala Thr Asn Leu Val						
	165		170		175	
Ser Gly Leu Ala Asp Ala Leu Leu Asp Ser Val Pro Leu Val Ala Ile						
	180		185		190	
Thr Gly Gln Val Pro Arg Arg Met Ile Gly Thr Asp Val Phe Gln Glu						
	195		200		205	
Thr Pro Ile Val Glu Val Thr Arg Ser Ile Thr Lys His Asn Tyr Leu						
	210		215		220	
Val Met Asp Val Glu Asp Ile Pro Arg Ile Ile Glu Glu Ala Phe Phe						
	225		230		235	240
Leu Ala Thr Ser Gly Arg Pro Gly Pro Val Leu Val Asp Val Pro Lys						
	245		250		255	
Asp Ile Gln Gln Gln Leu Ala Ile Pro Asn Trp Glu Gln Ala Met Arg						
	260		265		270	
Leu Pro Gly Tyr Met Ser Arg Met Pro Lys Pro Pro Glu Asp Ser His						
	275		280		285	
Leu Glu Gln Ile Val Arg Leu Ile Ser Glu Ser Lys Lys Pro Val Leu						
	290		295		300	
Tyr Val Gly Gly Gly Cys Leu Asn Ser Ser Asp Glu Leu Gly Arg Phe						
	305		310		315	320
Val Glu Leu Thr Gly Ile Pro Val Ala Ser Thr Leu Met Gly Leu Gly						
	325		330		335	
Ser Tyr Pro Cys Asp Asp Glu Leu Ser Leu His Met Leu Gly Met His						
	340		345		350	
Gly Thr Val Tyr Ala Asn Tyr Ala Val Glu His Ser Asp Leu Leu Leu						
	355		360		365	
Ala Phe Gly Val Arg Phe Asp Asp Arg Val Thr Gly Lys Leu Glu Ala						

370					375					380					
Phe	Ala	Ser	Arg	Ala	Lys	Ile	Val	His	Ile	Asp	Ile	Asp	Ser	Ala	Glu
385					390					395					400
Ile	Gly	Lys	Asn	Lys	Thr	Pro	His	Val	Ser	Val	Cys	Gly	Asp	Val	Lys
				405					410					415	
Leu	Ala	Leu	Gln	Gly	Met	Asn	Lys	Val	Leu	Glu	Asn	Arg	Ala	Glu	Glu
			420					425					430		
Leu	Lys	Leu	Asp	Phe	Gly	Val	Trp	Arg	Asn	Glu	Leu	Asn	Val	Gln	Lys
		435					440					445			
Gln	Lys	Phe	Pro	Leu	Ser	Phe	Lys	Thr	Phe	Gly	Glu	Ala	Ile	Pro	Pro
	450					455					460				
Gln	Tyr	Ala	Ile	Lys	Val	Leu	Asp	Glu	Leu	Thr	Asp	Gly	Lys	Ala	Ile
465					470					475					480
Ile	Ser	Thr	Gly	Val	Gly	Gln	His	Gln	Met	Trp	Ala	Ala	Gln	Phe	Tyr
				485					490					495	
Asn	Tyr	Lys	Lys	Pro	Arg	Gln	Trp	Leu	Ser	Ser	Gly	Gly	Leu	Gly	Ala
			500					505					510		
Met	Gly	Phe	Gly	Leu	Pro	Ala	Ala	Ile	Gly	Ala	Ser	Val	Ala	Asn	Pro
		515					520					525			
Asp	Ala	Ile	Val	Val	Asp	Ile	Asp	Gly	Asp	Gly	Ser	Phe	Ile	Met	Asn
		530					535				540				
Val	Gln	Glu	Leu	Ala	Thr	Ile	Arg	Val	Glu	Gln	Leu	Pro	Val	Lys	Ile
545					550					555					560
Leu	Leu	Leu	Asn	Asn	Gln	His	Leu	Gly	Met	Val	Met	Gln	Trp	Glu	Asp
			565					570					575		
Arg	Phe	Tyr	Lys	Ala	Asn	Arg	Ala	His	Thr	Phe	Leu	Gly	Asp	Pro	Ala
			580					585					590		
Gln	Glu	Asp	Glu	Ile	Phe	Pro	Asn	Met	Leu	Leu	Phe	Ala	Ala	Ala	Cys
		595					600					605			
Gly	Ile	Pro	Ala	Ala	Arg	Val	Thr	Lys	Lys	Ala	Asp	Leu	Arg	Glu	Ala
	610					615					620				
Ile	Gln	Thr	Met	Leu	Asp	Thr	Pro	Gly	Pro	Tyr	Leu	Leu	Asp	Val	Ile
625					630					635					640
Cys	Pro	His	Gln	Glu	His	Val	Leu	Pro	Met	Ile	Pro	Ser	Gly	Gly	Thr
			645					650					655		
Phe	Asn	Asp	Val	Ile	Thr	Glu	Gly	Asp	Gly	Arg	Ile	Lys	Tyr		
			660					665					670		

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<211> 31

<212> PRT

<213> Arabidopsis thaliana

<400> 27

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1 5 10 15

Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Ser Ser Ile Arg
20 25 30

<210> 28

<211> 31

<212> PRT

<213> Brassica napus

<400> 28

Leu Glu Arg Gln Gly Val Glu Thr Val Phe Ala Tyr Pro Gly Gly Ala
1 5 10 15

Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Ser Thr Ile Arg
20 25 30

<210> 29

<211> 31

<212> PRT

<213> Gossypium hirsutum

<400> 29

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25

30

<210> 30

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<212> PRT

<213> Nicotiana tabacum

<400> 30

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Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Lys Ile Ile Arg
 20 25 30

<210> 31

<211> 31

<212> PRT

<213> Glycine max

<400> 31

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 1 5 10 15

Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Ser Ser Ile Arg
 20 25 30

<210> 32

<211> 31

<212> PRT

<213> Zea mays

<400> 32

Leu Glu Arg Cys Gly Val Arg Asp Val Phe Ala Tyr Pro Gly Gly Ala
 1 5 10 15

Ser Met Glu Ile His Gln Ala Leu Thr Arg Ser Pro Val Ile Ala
 20 25 30

<210> 33

<211> 31

<212> PRT

<213> Arabidopsis thaliana

<400> 33

Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met Ile Gly Thr Asp Ala
 1 5 10 15

Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg Ser Ile Thr Lys
 20 25 30

<210> 34

<211> 31

<212> PRT

<213> Brassica napus

<400> 34

Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met Ile Gly Thr Asp Ala
 1 5 10 15

Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg Ser Ile Thr Lys
 20 25 30

<210> 35

<211> 31

<212> PRT

<213> Gossypium hirsutum

<400> 35

Val	Ala	Ile	Thr	Gly	Gln	Val	Pro	Arg	Arg	Met	Ile	Gly	Thr	Asp	Ala
1				5					10					15	

Phe	Gln	Glu	Thr	Pro	Ile	Val	Glu	Val	Thr	Arg	Ser	Ile	Thr	Lys
			20					25					30	

<210> 36

<211> 31

<212> PRT

<213> Nicotiana tabacum

<400> 36

Val	Ala	Ile	Thr	Gly	Gln	Val	Pro	Arg	Arg	Met	Ile	Gly	Thr	Asp	Ala
1				5					10					15	

Phe	Gln	Glu	Thr	Pro	Ile	Val	Glu	Val	Thr	Arg	Ser	Ile	Thr	Lys
			20					25					30	

<210> 37

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<212> PRT

<213> Glycine max

<400> 37

Val	Ala	Ile	Thr	Gly	Gln	Val	Pro	Arg	Arg	Met	Ile	Gly	Thr	Asp	Ala
1				5					10					15	

Phe	Gln	Glu	Thr	Pro	Ile	Val	Glu	Val	Thr	Arg	Ser	Ile	Thr	Lys
			20					25					30	

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<400> 38

Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met Ile Gly Thr Asp Ala
1 5 10 15

Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg Ser Ile Thr Lys
20 25 30

Val Ala Ile Thr Gly Gln Val Pro Arg Arg Met Ile Gly Thr Asp Ala
1 5 10 15
Phe Gln Glu Thr Pro Ile Val Glu Val Thr Arg Ser Ile Thr Lys
20 25 30